

WHAT IS CLAIMED IS:

1 1. An image forming apparatus, comprising:
2 a belt member;
3 a secondary transfer member, abutted against the belt member to
4 secondary transfer a toner image to a recording medium; and
5 a contact/separation mechanism, bringing the secondary transfer
6 member into contact with a first widthwise end portion in the belt member first.

1 2. The image forming apparatus as set forth in claim 1, wherein the belt
2 member has a multilayer structure with an electrode layer provided on the first
3 widthwise end portion; and
4 wherein the secondary transfer member is brought into contact with
5 the electrode layer of the belt member first.

1 3. The image forming apparatus as set forth in claim 2, wherein the
2 contact/separation mechanism separates the secondary transfer member from
3 the first widthwise end portion in the belt member so that the secondary transfer
4 member is entirely separated from the belt member.

1 4 The image forming apparatus as set forth in claim 1, further
2 comprising a cleaning member which is abutted against the belt member,
3 wherein the cleaning member is brought into contact with the first
4 widthwise end portion in the belt member first.

1 5 The image forming apparatus as set forth in claim 1, wherein the
2 secondary transfer member and the cleaning member are respectively brought
3 into contact with the belt member at a different timing.

1 6 The image forming apparatus as set forth in claim 1, wherein the
2 secondary transfer member and the cleaning member are respectively
3 separated from the belt member at a different timing.

1 7 The image forming apparatus as set forth in claim 1, wherein the belt
2 member has a multilayer structure with an electrode layer provided on the first
3 widthwise end portion; and

4 wherein the secondary transfer member and the cleaning member
5 are brought into contact with the electrode layer of the belt member first.

1 8. The image forming apparatus as set forth in claim 4, wherein the
2 contact/separation mechanism separates the cleaning member from the first
3 widthwise end portion in the belt member so that the cleaning member is entirely
4 separated from the belt member.

1 9. The image forming apparatus as set forth in claim 1, wherein the belt
2 member is seamed to form an endless belt, and the belt member including a
3 first region corresponding to an image forming region and a second region
4 corresponding to a non-image forming area, the second region having a seam
5 of the belt member;

6 wherein the contact/separation mechanism brings the secondary

7 transfer member into contact with a first widthwise end portion in the second
8 region of the belt member first; and
9 wherein the secondary transfer member is entirely brought into
10 contact with the belt member in the second region thereof so that a track of a
11 contact point between the secondary transfer member and the belt member
12 extends so as to cross the seam of the belt member.

1 10. The image forming apparatus as set forth in claim 9, further
2 comprising a cleaning member which is abutted against the belt member,
3 wherein the cleaning member is brought into contact with the first
4 widthwise end portion in the second region of the belt member first; and
5 wherein the cleaning member is entirely brought into contact with the
6 belt member in the second region thereof so that a track of a contact point
7 between the cleaning member and the belt member extends so as to cross the
8 seam of the belt member.

1 11. The image forming apparatus as set forth in claim 10, wherein the
2 secondary transfer member and the cleaning member are respectively brought
3 into contact with the belt member at a different timing.

1 12. The image forming apparatus as set forth in claim 10, wherein the
2 secondary transfer member and the cleaning member are respectively
3 separated from the belt member at a different timing.

1 13. The image forming apparatus as set forth in claim 10, wherein the

2 contact/separation mechanism separates the cleaning member from the first
3 widthwise end portion in the belt member so that the cleaning member is entirely
4 separated from the belt member.

1 14. The image forming apparatus as set forth in claim 9, further
2 comprising a cleaning member which is abutted against the belt member,
3 wherein the cleaning member is brought into contact with the first
4 widthwise end portion in the second region of the belt member first; and
5 wherein the cleaning member is entirely brought into contact with the
6 belt member in the second region thereof so that a track of a contact point
7 between the cleaning member and the belt member extends so as to avoid the
8 seam of the belt member.

1 15. The image forming apparatus as set forth in claim 14, wherein the
2 secondary transfer member and the cleaning member are respectively brought
3 into contact with the belt member at a different timing.

1 16. The image forming apparatus as set forth in claim 14, wherein the
2 secondary transfer member and the cleaning member are respectively
3 separated from the belt member at a different timing.

1 17. The image forming apparatus as set forth in claim 14, wherein the
2 contact/separation mechanism separates the cleaning member from the first
3 widthwise end portion in the belt member so that the cleaning member is entirely
4 separated from the belt member.

1 18. The image forming apparatus as set forth in claim 18, wherein the
2 belt member has a multilayer structure with an electrode layer provided on the
3 first widthwise end portion; and

4 wherein the secondary transfer member and the cleaning member
5 are respectively brought into contact with the electrode layer of the belt member
6 first.

1 19. The image forming apparatus as set forth in claim 9, wherein the
2 contact/separation mechanism separates the secondary transfer member from
3 the first widthwise end portion in the belt member so that the second transfer
4 member is entirely separated from the belt member.

1 20. The image forming apparatus as set forth in claim 1, wherein the belt
2 member is seamed to form an endless belt, and the belt member including a
3 first region corresponding to an image forming region and a second region
4 corresponding to a non-image forming area, the second region having a seam
5 of the belt member;

6 wherein the contact/separation mechanism brings the secondary
7 transfer member into contact with the first widthwise end portion in the second
8 region of the belt member first;

9 wherein the secondary transfer member is entirely brought into
10 contact with the belt member in the second region thereof so that a track of a
11 contact point between the secondary transfer member and the belt member
12 extends so as to avoid the seam of the belt member.

1 21. The image forming apparatus as set forth in claim 20, further
2 comprising a cleaning member which is abutted against the belt member,
3 wherein the cleaning member is brought into contact with the first
4 widthwise end portion in the second region of the belt member first; and
5 wherein the cleaning member is entirely brought into contact with the
6 belt member in the second region thereof so that a track of a contact point
7 between the cleaning member and the belt member extends so as to cross the
8 seam of the belt member.

1 22. The image forming apparatus as set forth in claim 21, wherein the
2 secondary transfer member and the cleaning member are respectively brought
3 into contact with the belt member at a different timing.

1 23. The image forming apparatus as set forth in claim 21, wherein the
2 secondary transfer member and the cleaning member are respectively
3 separated from the belt member at a different timing.

1 24. The image forming apparatus as set forth in claim 21, wherein the
2 contact/separation mechanism separates the cleaning member from the first
3 widthwise end portion in the belt member so that the cleaning member is entirely
4 separated from the belt member.

1 25. The image forming apparatus as set forth in claim 20, further
2 comprising a cleaning member which is abutted against the belt member,
3 wherein the cleaning member is brought into contact with the first

4 widthwise end portion in the second region of the belt member first; and
5 wherein the cleaning member is entirely brought into contact with the
6 belt member in the second region thereof so that a track of a contact point
7 between the cleaning member and the belt member extends so as to avoid the
8 seam of the belt member.

1 26. The image forming apparatus as set forth in claim 25, wherein the
2 secondary transfer member and the cleaning member are respectively brought
3 into contact with the belt member at a different timing.

1 27. The image forming apparatus as set forth in claim 25, wherein the
2 secondary transfer member and the cleaning member are respectively
3 separated from the belt member at a different timing.

1 28. The image forming apparatus as set forth in claim 25, wherein the
2 contact/separation mechanism separates the cleaning member from the first
3 widthwise end portion in the belt member so that the cleaning member is entirely
4 separated from the belt member.

1 29. The image forming apparatus as set forth in claim 20, wherein the
2 belt member has a multilayer structure with an electrode layer provided on the
3 first widthwise end portion; and
4 wherein the secondary transfer member and the cleaning member
5 are respectively brought into contact with the electrode layer of the belt member
6 first.

1 30. The image forming apparatus as set forth in claim 20, wherein the
2 contact/separation mechanism separates the secondary transfer member from
3 the first widthwise end portion in the belt member so that the second transfer
4 member is entirely separated from the belt member.

1 31. An image forming apparatus, comprising:
2 a belt member;
3 a secondary transfer member, abutted against the belt member to
4 secondary transfer a toner image to a recording medium; and
5 a contact/separation mechanism, keeping the secondary transfer
6 member in contact with a first widthwise end portion in the belt member.

1 32. The image forming apparatus as set forth in claim 31, wherein the
2 belt member has a multilayer structure with an electrode layer provided on the
3 first widthwise end portion; and
4 wherein the secondary transfer member is kept in contact with the
5 electrode layer of the belt member.

1 33. The image forming apparatus as set forth in claim 31, wherein a first
2 end portion of the secondary transfer member which is kept in contact with the
3 first widthwise end portion in the belt member is formed by an insulative elastic
4 member.

1 34. The image forming apparatus as set forth in claim 33, wherein the
2 secondary transfer member is a secondary transfer roller;

3 wherein the insulative elastic member is larger in diameter than the
4 secondary transfer roller; and

5 wherein the insulative elastic member is comprised of a material that
6 is softer than the secondary transfer roller.

1 35. An image forming apparatus, comprising:
2 a belt member;
3 a cleaning member, abutted against the belt member; and
4 a contact/separation mechanism, bringing the cleaning member into
5 contact with a first widthwise end portion in the belt member first.

1 36. The image forming apparatus as set forth in claim 35, wherein the
2 belt member has a multilayer structure with an electrode layer provided on the
3 first widthwise end portion; and
4 wherein the cleaning member is brought into contact with the
5 electrode layer of the belt member first.

1 37. The image forming apparatus as set forth in claim 35, wherein the
2 belt member is seamed to form an endless belt.

1 38. The image forming apparatus as set forth in claim 35, wherein the
2 contact/separation mechanism separates the cleaning member from the first
3 widthwise end portion in the belt member so that the cleaning member is entirely
4 separated from the belt member.

1 39. The image forming apparatus as set forth in claim 38, wherein the
2 belt member is seamed to form an endless belt, and the belt member including
3 a first region corresponding to an image forming region and a second region
4 corresponding to a non-image forming area, the second region having a seam
5 of the belt member;

6 wherein the contact/separation mechanism brings the cleaning
7 member into contact with the first widthwise end portion in the second region of
8 the belt member first; and

9 wherein the contact/separation mechanism separates the cleaning
10 member from the first widthwise end portion in the second region of the belt
11 member so that the cleaning member is entirely separated from the belt member.

1 40. An image forming apparatus, comprising:

2 an image carrier;

3 a transfer roller;

4 a contact/separation mechanism, bringing the transfer roller into
5 contact with the image carrier, and separating the transfer roller from the image
6 carrier; and

7 a rotation applier, applying a preliminary rotation to the transfer roller
8 in a state that the transfer roller is separated from the image carrier,

9 wherein the rotation applier and the transfer roller are separated from
10 each other mechanically in a state that the transfer roller is in contact with the
11 image carrier.

1 41. The image forming apparatus as set forth in claim 40, wherein a

2 circumferential speed of the preliminary rotation to be applied to the transfer
3 roller is higher than or equal to that of the image carrier.

1 42. The image forming apparatus as set forth in claim 40, wherein the
2 rotation applier applies the preliminary rotation to the transfer roller at a first
3 rotation speed; and

4 wherein the rotation applier applies a posterior rotation to the transfer
5 roller at a second rotation speed different from the first rotation speed in a state
6 that the rotation applier is engaged with the transfer roller after a transfer is
7 performed.